CLAIMS

1. A composition comprising:

an immunoconjugate which comprises one or more anti-CD74 binding molecules conjugated to one or more lipids, polymeric carriers, micelles, nanoparticles, or combinations thereof; and

one or more effectors.

2. The composition of claim 1 further comprising an emulsion.

3. The composition of claim 1 further comprising a liposome.

4. The composition of claim 1 wherein one or more of the anti-CD74 binding molecules are conjugated to one or more lipids.

5. The composition of claim 1 wherein one or more of the anti-CD74 binding molecules are conjugated to one or more polymeric carriers.

6. The composition of claim 1 wherein one or more of the anti-CD74 binding molecules are conjugated to one or more micelles.

7. The composition of claim 1 wherein one or more of the anti-CD74 binding molecules are conjugated to one or more nanoparticles.

8. The composition of claim 1 wherein the one or more anti-CD74 binding molecules comprise LL1 or fragments thereof.

9. The composition of claim 1 wherein the one or more anti-CD74 binding molecules are conjugated to the one or more lipids by one or more of a sulfide linkage, a hydrazone linkage, a hydrazine linkage, an ester linkage, an amido linkage, an amino linkage, an imino linkage, a

thiosemicarbazone linkage, a semicarbazone linkage, an oxime linkage, a carbon-carbon linkage, or combinations thereof.

10. The composition of claim 9 wherein the binding molecule is conjugated by a sulfide linkage.

11. The composition of claim 1 further comprising one or more additional binding molecules which specifically bind to one or more antigens selected from the group consisting of CD4, CD5, CD8, CD14, CD15, CD19, CD20, CD21, CD22, CD23, CD25, CD30, CD33, CD37, CD38, CD40, CD40L, CD46, CD52, CD54, CD80, CD126, B7, MUC1, MUC2, MUC3, MUC4, Ia, HM1.24, tensascin, VEGF, EGFR, CEA, CSAp, ILGF, placental growth factor, carbonic anhydrase IX, IL-6 and combinations thereof.

12. The composition of claim 11 wherein the additional binding molecule is conjugated to the one or more lipids, polymeric carriers, micelles, nanoparticles, or combinations thereof.

13. The composition of claim 1 wherein one or more of the lipids are amphiphilic.

14. The composition of claim 1 wherein one or more of the lipids comprise one or more nucleophilic carbons at a distal terminus.

15. The composition of claim 1 wherein one or more of the lipids comprise one or more maleimide groups at a distal terminus.

16. The composition of claim 15 wherein one or more the lipids comprise PEG-maleimide.

17. The composition of claim 15 wherein one or more of the anti-CD74 binding molecules are linked to one or more of the maleimide groups.

18. The composition of claim 15 wherein one or more of the anti-CD74 binding molecules are linked by one or more free thiol groups to one or more of the maleimide groups.

19. The composition of claim 1 wherein one or more of the lipids comprise polyethyleneglycol (PEG).

20. The composition of claim 1 wherein the effector comprises a therapeutic agent or a diagnostic agent.

21. The composition of claim 1 wherein the effector comprises a drug, a prodrug, a toxin, an enzyme, a radioisotope, an immunomodulator, a cytokine, a hormone, a binding molecule, an oligonucleotide, a photodynamic agent, or mixtures thereof.

22. The composition of claim 1 wherein the effector comprises aplidin, azaribine, anastrozole, azacytidine, bleomycin, bortezomib, bryostatin-1, busulfan, calicheamycin, camptothecin, 10-hydroxycamptothecin, carmustine, celebrex, chlorambucil, cisplatin, irinotecan (CPT-11), SN-38, carboplatin, cladribine, cyclophosphamide, cytarabine, dacarbazine, docetaxel, dactinomycin, daunomycin glucuronide, daunorubicin, dexamethasone, diethylstilbestrol, doxorubicin, doxorubicin glucuronide,

epirubicin glucuronide, ethinyl estradiol, estramustine, etoposide, etoposide glucuronide, etoposide phosphate, floxuridine (FUdR), 3',5'-O-dioleoyl-FudR (FUdR-dO), fludarabine, flutamide, fluorouracil, fluoxymesterone, gemcitabine, hydroxyprogesterone caproate, hydroxyurea, idarubicin, ifosfamide, L-asparaginase, leucovorin, lomustine, mechlorethamine, medroprogesterone acetate, megestrol acetate, melphalan, mercaptopurine, 6-mercaptopurine, methotrexate, mitoxantrone, mithramycin, mitomycin, mitotane, phenyl butyrate, prednisone, procarbazine, paclitaxel, pentostatin, PSI-341, semustine streptozocin, tamoxifen, taxanes, taxol, testosterone propionate, thalidomide, thioguanine, thiotepa, teniposide, topotecan, uracil mustard, velcade, vinblastine, vinorelbine, vincristine, ricin, abrin, ribonuclease, onconase, rapLR1, DNase I, *Staphylococcal* enterotoxin-A, pokeweed antiviral protein, gelonin, diphtheria toxin, *Pseudomonas* exotoxin, and *Pseudomonas* endotoxin, or combinations thereof.

23. The composition of claim 22 wherein the effector comprises FUdR, FUdR-dO, or mixtures thereof.

24. The composition of claim 1 further comprising one or more hard acid chelators or soft acid chelators.

25. The composition of claim 1 further comprising cations selected from Group II, Group III, Group IV, Group V, transition, lanthanide or actinide metal cations, or mixtures thereof.

26. The composition of claim 1 further comprising cations selected from Tc, Re, Bi, Cu, As, Ag, Au, At, Pb, or mixtures thereof.

27. The composition of claim 1 further comprising NOTA, DOTA, DTPA, TETA, Tscg-Cys, Tsca-Cys, or mixtures thereof.

28. The composition of claim 1 wherein the effector comprises a nuclide.

29. The composition of claim 28 wherein the nuclide comprises ^{18}F, ^{32}P, ^{33}P, ^{45}Ti, ^{47}Sc, ^{52}Fe, ^{59}Fe, ^{62}Cu, ^{64}Cu, ^{67}Cu, ^{67}Ga, ^{68}Ga, ^{75}Se, ^{77}As, ^{86}Y, ^{89}Sr, ^{89}Zr, ^{90}Y, ^{94}Tc, ^{94m}Tc, ^{99}Mo, ^{99m}Tc, ^{105}Pd, ^{105}Rh, ^{111}Ag, ^{111}In, ^{123}I, ^{124}I, ^{125}I, ^{131}I, ^{142}Pr, ^{143}Pr, ^{149}Pm, ^{153}Sm, $^{154\text{-}158}Gd$, ^{161}Tb, ^{166}Dy, ^{166}Ho, ^{169}Er, ^{175}Lu, ^{177}Lu, ^{186}Re, ^{188}Re, ^{189}Re, ^{194}Ir, ^{198}Au, ^{199}Au, ^{211}At, ^{211}Pb ^{212}Bi, ^{212}Pb, ^{213}Bi, ^{223}Ra, ^{225}Ac, or mixtures thereof.

30. The composition of claim 1 wherein the effector comprises an enzyme.

31. The composition of claim 30 wherein the enzyme is selected from the group consisting of carboxylesterases, glucoronidases, carboxypeptidases, beta-lactamases, phosphatases, and mixtures thereof.

32. The composition of claim 1 wherein the effector comprises an immunomodulator.

33. The composition of claim 32 wherein the immunomodulator is selected from the group consisting of IL-1, IL-2, IL-3, IL-6, IL-10, IL-12, IL-18, IL-21, interferon-α, interferon-β, interferon-γ, G-CSF, GM-CSF, and mixtures thereof.

34. The composition of claim 1 wherein the effector comprises an anti-angiogenic agent selected from the group consisting of angiostatin, endostatin, basculostatin, canstatin, maspin, anti-VEGF binding molecules, anti-placental growth factor binding molecules, anti-vascular growth factor binding molecules, and mixtures thereof.

35. The composition of claim 1 wherein the anti-CD74 binding molecule is conjugated to one or more therapeutic agents, diagnostic agents, or mixtures thereof.

36. The composition of claim 1 wherein the anti-CD74 binding molecule comprises a humanized, human or chimeric anti-CD74 antibody or fragment thereof.

37. The composition of claim 36 wherein the humanized, human or chimeric anti-CD74 antibody or fragment thereof comprises a monoclonal antibody (mAb) or fragment thereof.

38. The composition of claim 36 wherein the human, chimeric, or humanized anti-CD 74 antibody or fragment thereof comprises: a fragment which comprises $F(ab')_2$, Fab, scFv, Fv, or a fusion protein utilizing part or all the light and heavy chains of the $F(ab')_2$, Fab, scFv,or Fv; and wherein the fragment binds to CD74.

39. The composition of claim 38 wherein the fusion protein is multivalent, or multivalent and multispecific.

40. The composition of claim 36 wherein the human, chimeric, or humanized anti-CD 74 antibody or fragment thereof further comprises constant regions of IgG1, which are replaced with human constant regions of human IgG2a, IgG3, or IgG4.

41. The composition of claim 1 wherein the anti-CD 74 binding molecule is an anti-CD 74 diabody, a triabody, or a tetrabody.

42. A method for treating and/or diagnosing a disease or disorder comprising administering to a patient a therapeutic and/or diagnostic composition comprising the composition of claim 1 and a pharmaceutically acceptable excipient.

43. The method of claim 42 wherein the disease or disorder is a CD74-expressing malignancy.

44. The method of claim 42 wherein the disease or disorder is selected from the group consisting of an immune dysregulation disease, an

autoimmune disease, an organ-graft rejection, and a graft-versus-host disease.

45. The method of claim 43 wherein the CD74-expressing malignancy is selected from the group consisting of a solid tumor, non-Hodgkin's lymphoma, Hodgkin's lymphoma, multiple myeloma, a B-cell malignancy, and a T-cell malignancy.

46. The method of claim 42 wherein the disease or disorder is a CD74-expressing malignancy other than lymphoma or leukemia.

47. The method of claim 43 wherein the CD74-expressing malignancy is a solid tumor.

48. The method of claim 47 wherein the solid tumor is selected from the group consisting of a melanoma, carcinoma, sarcoma, and glioma.

49. The method of claim 48 wherein the carcinoma is selected from the group consisting of a renal carcinoma, lung carcinoma, intestinal carcinoma, stomach carcinoma, breast carcinoma, prostate cancer, ovarian cancer, and melanoma.

50. The method of claim 43 wherein the CD74-expressing malignancy is a B-cell malignancy selected from the group consisting of indolent forms of B-cell lymphomas, aggressive forms of B-cell lymphomas, chronic lymphatic leukemias, acute lymphatic leukemias, and multiple myeloma.

51. The method of claim 42 wherein the composition is administered intravenously or intramuscularly at a dose of 20-5000 mg.

52. The method of claim 42 wherein the composition comprises LL1 or a fragment thereof.

53. The method of claim 42 wherein the composition further comprises one or more additional antibodies or fragments thereof selected from the group consisting of anti-CD19, anti-CD20, anti-CD22, anti-CD30, anti-CD33, anti-CD52, anti-HLA-DR, anti-MUC1, anti-TAC, and mixtures thereof.

54. The method of claim 43 wherein one or more of the additional antibodies are conjugated to one or more of the lipids, polymeric carriers, micelles, nanoparticles, or combinations thereof.

55. The method of claim 42 wherein the effector molecule comprises one or more drugs, prodrugs, toxins, enzymes, radioisotopes, immunomodulators, cytokines, hormones, antibodies, oligonucleotides, or combinations thereof.

56. The method of claim 42 wherein the effector molecule comprises aplidin, azaribine, anastrozole, azacytidine, bleomycin, bortezomib, bryostatin-1, busulfan, calicheamycin, camptothecin, 10-hydroxycamptothecin, carmustine, celebrex, chlorambucil, cisplatin, irinotecan (CPT-11), SN-38, carboplatin, cladribine, cyclophosphamide, cytarabine, dacarbazine, docetaxel, dactinomycin, daunomycin

glucuronide, daunorubicin, dexamethasone, diethylstilbestrol, doxorubicin, doxorubicin glucuronide, epirubicin glucuronide, ethinyl estradiol, estramustine, etoposide, etoposide glucuronide, etoposide phosphate, floxuridine (FUdR), 3',5'-O-dioleoyl-FudR (FUdR-dO), fludarabine, flutamide, fluorouracil, fluoxymesterone, gemcitabine, hydroxyprogesterone caproate, hydroxyurea, idarubicin, ifosfamide, L-asparaginase, leucovorin, lomustine, mechlorethamine, medroprogesterone acetate, megestrol acetate, melphalan, mercaptopurine, 6-mercaptopurine, methotrexate, mitoxantrone, mithramycin, mitomycin, mitotane, phenyl butyrate, prednisone, procarbazine, paclitaxel, pentostatin, PSI-341, semustine streptozocin, tamoxifen, taxanes, taxol, testosterone propionate, thalidomide, thioguanine, thiotepa, teniposide, topotecan, uracil mustard, velcade, vinblastine, vinorelbine, vincristine, ricin, abrin, ribonuclease, onconase, rapLR1, DNase I, *Staphylococcal* enterotoxin-A, pokeweed antiviral protein, gelonin, diphtheria toxin, *Pseudomonas* exotoxin, and *Pseudomonas* endotoxin, or combinations thereof.

57. The method of claim 56 wherein the effector comprises FUdR, FUdR-dO, or mixtures thereof.

58. The method of claim 42 wherein the composition further comprises one or more hard acid chelators or soft acid chelators.

59. The method of claim 42 wherein the composition further comprises cations selected from Group II, Group III, Group IV, Group V, transition, lanthanide or actinide metal cations, or mixtures thereof.

60. The method of claim 42 wherein the composition further comprises cations selected from Tc, Re, Bi, Cu, As, Ag, Au, At, Pb, or mixtures thereof.

61. The method of claim 42 wherein the composition further comprises NOTA, DOTA, DTPA, TETA, Tscg-Cys, Tsca-Cys, or mixtures thereof.

62. The method of claim 42 wherein the composition comprises a nuclide.

63. The method of claim 62 wherein the nuclide comprises ^{18}F, ^{32}P, ^{33}P, ^{45}Ti, ^{47}Sc, ^{52}Fe, ^{59}Fe, ^{62}Cu, ^{64}Cu, ^{67}Cu, ^{67}Ga, ^{68}Ga, ^{75}Se, ^{77}As, ^{86}Y, ^{89}Sr, ^{89}Zr, ^{90}Y, ^{94}Tc, ^{94m}Tc, ^{99}Mo, ^{99m}Tc, ^{105}Pd, ^{105}Rh, ^{111}Ag, ^{111}In, ^{123}I, ^{124}I, ^{125}I, ^{131}I, ^{142}Pr, ^{143}Pr, ^{149}Pm, ^{153}Sm, $^{154\text{-}158}Gd$, ^{161}Tb, ^{166}Dy, ^{166}Ho, ^{169}Er, ^{175}Lu, ^{177}Lu, ^{186}Re, ^{188}Re, ^{189}Re, ^{194}Ir, ^{198}Au, ^{199}Au, ^{211}At, ^{211}Pb ^{212}Bi, ^{212}Pb, ^{213}Bi, ^{223}Ra, ^{225}Ac, or mixtures thereof.

64. The method of claim 62 wherein the composition comprises an enzyme.

65. The method of claim 64 wherein the enzyme comprises carboxylesterases, glucoronidases, carboxypeptidases, beta-lactamases, phosphatases, or mixtures thereof.

66. The method of claim 62 wherein the composition comprises an immunomodulator.

67. The method of claim 66 wherein the immunomodulator comprises IL-1, IL-2, IL-3, IL-6, IL-10, IL-12, IL-18, IL-21, interferon-α, interferon-β, interferon-γ, G-CSF, GM-CSF, or mixtures thereof.

68. The method of claim 42 wherein the composition comprises one or more agents for photodynamic therapy.

69. The method of claim 68 wherein the agent for photodynamic therapy is a photosensitizer.

70. The method of claim 69 wherein the photosensitizer comprises a benzoporphyrin monoacid ring A (BDP-MA), tin etiopurpurin (SnET2), sulfonated aluminum phthalocyanine (AlSPc) and lutetium texaphyrin (Lutex).

71. The method of claim 42 wherein the composition comprises one or more diagnostic agents.

72. The method of claim 42 wherein the composition comprises a diagnostic nuclide.

73. The method of claim 72 wherein the diagnostic nuclide comprises ^{18}F, ^{52}Fe, ^{62}Cu, ^{64}Cu, ^{67}Cu, ^{67}Ga, ^{68}Ga, ^{86}Y, ^{89}Zr, ^{94}Tc, ^{94m}Tc, ^{99m}Tc, ^{111}In, ^{123}I, ^{124}I, ^{125}I, ^{131}I, or mixtures thereof.

74. The method of claim 73 wherein the diagnostic nuclide emits 25-4000 keV gamma particles and/or positrons.

75. The method of claim 71 wherein the diagnostic agent is used for performing positron emission tomograph (PET).

76. The method of claim 42 further comprising performing positron-emission tomography (PET).

77. The method of claim 71 wherein the diagnostic agent comprises one or more image enhancing agents and the method further comprises performing magnetic resonance imaging (MRI).

78. The method of claim 77 wherein the image enhancing agent comprises gadolinium ions, lanthanum ions, manganese ions, iron, chromium, copper, cobalt, nickel, fluorine, dysprosium, rhenium, europium, terbium, holmium, neodymium, or mixtures thereof.

79. The method of claim 42 wherein the composition comprises one or more radiopaque agents or contrast agents for X-ray or computed tomography (CT).

80. The method of claim 42 wherein said radiopaque or contrast agents include barium, diatrizoate, ethiodized oil, gallium citrate, iocarmic acid, iocetamic acid, iodamide, iodipamide, iodoxamic acid, iogulamide, iohexol, iopamidol, iopanoic acid, ioprocemic acid, iosefamic acid, ioseric acid, iosulamide meglumine, iosemetic acid, iotasul, iotetric acid, iothalamic acid, iotroxic acid, ioxaglic acid, ioxotrizoic acid, ipodate, meglumine, metrizamide, metrizoate, propyliodone, thallous chloride, or combinations thereof.

81. The method of claim 42 wherein the composition comprises one or more ultrasound contrast agents.

82. The method of claim 81 wherein said ultrasound contrast agent includes a liposome or dextran.

83. The method of claim 82 wherein the liposome is gas-filled.

84. The method of claim 42 further comprising performing an operative, intravascular, laparoscopic, or endoscopic procedure.

85. The method of claim 42 further comprising administering an additional composition which comprises a therapeutic agent, a diagnostic agent, or mixtures thereof.

86. The method claim 42 wherein the additional composition comprises:

an immunoconjugate which comprises one or more anti-CD74 binding molecules conjugated to one or more lipids, polymeric carriers, micelles, nanoparticles, or combinations thereof; and

one or more effectors.

87. The method of claim 86 wherein the anti-CD 74 antibody or fragment thereof is conjugated to the therapeutic agent, the diagnostic agent, or mixtures thereof by chemical conjugation or genetic fusion.

88. The method of claim 85 wherein the composition is administered before, during, simultaneously, or after the administration of the additional composition.

89. The method of claim 85 wherein the additional composition comprises one or more drugs, prodrugs, toxins, enzymes, radioisotopes, immunomodulators, cytokines, hormones, antibodies, oligonucleotides, or combinations thereof.

90. The method of claim 85 wherein the additional composition comprises aplidin, azaribine, anastrozole, azacytidine, bleomycin, bortezomib, bryostatin-1, busulfan, calicheamycin, camptothecin, 10-hydroxycamptothecin, carmustine, celebrex, chlorambucil, cisplatin, irinotecan (CPT-11), SN-38, carboplatin, cladribine, cyclophosphamide, cytarabine, dacarbazine, docetaxel, dactinomycin, daunomycin glucuronide, daunorubicin, dexamethasone, diethylstilbestrol, doxorubicin, doxorubicin glucuronide, epirubicin glucuronide, ethinyl estradiol, estramustine, etoposide, etoposide glucuronide, etoposide phosphate, floxuridine (FUdR), 3',5'-O-dioleoyl-FudR (FUdR-dO), fludarabine, flutamide, fluorouracil, fluoxymesterone, gemcitabine, hydroxyprogesterone caproate, hydroxyurea, idarubicin, ifosfamide, L-asparaginase, leucovorin, lomustine, mechlorethamine, medroprogesterone acetate, megestrol acetate, melphalan, mercaptopurine, 6-mercaptopurine, methotrexate, mitoxantrone, mithramycin, mitomycin, mitotane, phenyl butyrate, prednisone, procarbazine, paclitaxel, pentostatin, PSI-341, semustine streptozocin, tamoxifen, taxanes, taxol, testosterone propionate, thalidomide,

thioguanine, thiotepa, teniposide, topotecan, uracil mustard, velcade, vinblastine, vinorelbine, vincristine, ricin, abrin, ribonuclease, onconase, rapLR1, DNase I, *Staphylococcal* enterotoxin-A, pokeweed antiviral protein, gelonin, diphtheria toxin, *Pseudomonas* exotoxin, and *Pseudomonas* endotoxin, or combinations thereof.

91. The method of claim 90 wherein the additional composition comprises FUdR, FUdR-dO, or mixtures thereof.

92. The method of claim 85 wherein the additional composition comprises one or more hard acid chelators or soft acid chelators.

93. The method of claim 85 wherein the additional composition comprises cations selected from Group II, Group III, Group IV, Group V, transition, lanthanide or actinide metal cations, or mixtures thereof.

94. The method of claim 85 wherein the additional composition comprises cations selected from Tc, Re, Bi, Cu, As, Ag, Au, At, Pb, or mixtures thereof.

95. The method of claim 85 wherein the additional composition comprises NOTA, DOTA, DTPA, TETA, Tscg-Cys, Tsca-Cys, or mixtures thereof.

96. The method of claim 85 wherein the additional composition comprises a nuclide.

97. The method of claim 96 wherein the nuclide comprises ^{18}F, ^{32}P, ^{33}P, ^{45}Ti, ^{47}Sc, ^{52}Fe, ^{59}Fe, ^{62}Cu, ^{64}Cu, ^{67}Cu, ^{67}Ga, ^{68}Ga, ^{75}Se, ^{77}As, ^{86}Y, ^{89}Sr,

^{89}Zr, ^{90}Y, ^{94}Tc, ^{94m}Tc, ^{99}Mo, ^{99m}Tc, ^{105}Pd, ^{105}Rh, ^{111}Ag, ^{111}In, ^{123}I, ^{124}I, ^{125}I, ^{131}I, ^{142}Pr, ^{143}Pr, ^{149}Pm, ^{153}Sm, $^{154\text{-}158}Gd$, ^{161}Tb, ^{166}Dy, ^{166}Ho, ^{169}Er, ^{175}Lu, ^{177}Lu, ^{186}Re, ^{188}Re, ^{189}Re, ^{194}Ir, ^{198}Au, ^{199}Au, ^{211}At, ^{211}Pb ^{212}Bi, ^{212}Pb, ^{213}Bi, ^{223}Ra, ^{225}Ac, or mixtures thereof.

98. The method of claim 85 wherein the additional composition comprises an enzyme.

99. The method of claim 85 wherein the enzyme comprises carboxylesterases, glucoronidases, carboxypeptidases, beta-lactamases, phosphatases, or mixtures thereof.

100. The method of claim 85 wherein the additional composition comprises an immunomodulator.

101. The method of claim 100 wherein the immunomodulator comprises IL-1, IL-2, IL-3, IL-6, IL-10, IL-12, IL-18, IL-21, interferon-α, interferon-β, interferon-γ, G-CSF, GM-CSF, or mixtures thereof.

102. The method of claim 85 wherein the additional composition comprises one or more diagnostic agents.

103. The method of claim 85 wherein the additional composition comprises one or more agents for photodynamic therapy.

104. The method of claim 103 wherein the agent for photodynamic therapy is a photosensitizer.

105. The method of claim 104 wherein the photosensitizer comprises a benzoporphyrin monoacid ring A (BDP-MA), tin etiopurpurin (SnET2),

sulfonated aluminum phthalocyanine (AlSPc) and lutetium texaphyrin (Lutex).

106. The method of claim 85 wherein the additional composition comprises a diagnostic nuclide.

107. The method of claim 106 wherein the diagnostic nuclide comprises ^{18}F, ^{52}Fe, ^{62}Cu, ^{64}Cu, ^{67}Cu, ^{67}Ga, ^{68}Ga, ^{86}Y, ^{89}Zr, ^{94}Tc, ^{94m}Tc, ^{99m}Tc, ^{111}In, ^{123}I, ^{124}I, ^{125}I, ^{131}I, or mixtures thereof.

108. The method of claim 106 wherein the diagnostic nuclide emits 25-4000 keV gamma particles and/or positrons.

109. The method of claim 102 wherein the diagnostic agent is used for performing positron emission tomograph (PET).

110. The method of claim 85 further comprising performing positron-emission tomography (PET).

111. The method of claim 102 wherein the diagnostic agent comprises one or more image enhancing agents and the method further comprises performing magnetic resonance imaging (MRI).

112. The method of claim 111 wherein the image enhancing agent comprises gadolinium ions, lanthanum ions, manganese ions, iron, chromium, copper, cobalt, nickel, fluorine, dysprosium, rhenium, europium, terbium, holmium, neodymium, or mixtures thereof.

113. The method of claim 85 wherein the additional composition comprises one or more radiopaque agents or contrast agents for X-ray or computed tomography (CT).

114. The method of claim 85 wherein said radiopaque or contrast agents include barium, diatrizoate, ethiodized oil, gallium citrate, iocarmic acid, iocetamic acid, iodamide, iodipamide, iodoxamic acid, iogulamide, iohexol, iopamidol, iopanoic acid, ioprocemic acid, iosefamic acid, ioseric acid, iosulamide meglumine, iosemetic acid, iotasul, iotetric acid, iothalamic acid, iotroxic acid, ioxaglic acid, ioxotrizoic acid, ipodate, meglumine, metrizamide, metrizoate, propyliodone, thallous chloride, or combinations thereof.

115. The method of claim 85 wherein the additional composition comprises one or more ultrasound contrast agents.

116. The method of claim 115 wherein said ultrasound contrast agent includes a liposome or dextran.

117. The method of claim 116 wherein the liposome is gas-filled.

118. The method of claim 85 further comprising performing an operative, intravascular, laparoscopic, or endoscopic procedure.

119. A method of preparing a carrier comprising:

mixing one or more amphiphilic lipids with an effector to form a carrier; and

contacting the carrier with an anti-CD74 antibody.

120. The method of claim 119 wherein one or more of the lipids comprise a maleimide group.

121. The method of claim 119 further comprising reducing the antibody.

122. The method of claim 120 further comprising reacting one or more of the maleimide groups with a free thiol group on the anti-CD74 antibody.

123. The method of claim 119 wherein the effector comprises one or more drugs, prodrugs, toxins, enzymes, radioisotopes, immunomodulators, cytokines, hormones, antibodies, oligonucleotides, or mixtures thereof.

124. The method of claim 119 further comprising mixing the carrier with one or more therapeutic or diagnostic agents.

125. A kit comprising the composition of claim 1.